

CLAIMS

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What is claimed is:

1. 1. A method for determining the characteristics of a display device coupled to a
2 network client device capable of receiving TV signals, the network client device having
3 video and audio output capabilities, said method comprising the steps of:

4 driving a display device with a first video output signal formatted according to a
5 first video interface specification;

6 responsive to driving the display device, soliciting user input based on information
7 included in the first video output signal;

8 determining a characteristic of the display device based on the user input; and
9 driving the display device according to the determined characteristic.

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1. 2. The method of claim 1, wherein the characteristic includes at least one of a type of
2 display device, picture size, frame rate, scan format, color format, colorimetry, picture
3 width-to-height aspect ratio, width-to-height aspect ratio of pixels, and capability and
4 manner of receiving ancillary data.

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1. 3. The method of claim 1, wherein the display device includes at least one of a
2 television set and a display monitor.

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1. 4. The method of claim 1, wherein the step of driving a display device with a first
2 video output signal further includes the step of transmitting an audio output signal
3 containing audible voice instructions to the user.

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1. 5. The method of claim 1, wherein the step of driving a display device with a first
2 video output signal includes the step of transmitting at least one of graphics data and
3 video data.

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1. 6. The method of claim 1, wherein the step of driving the display device according to
2 the determined characteristic further includes the steps of receiving a TV signal at a

3 network client device, processing the TV signal, and transmitting a video output signal
4 according to the first video interface specification and according to at least one parameter
5 of the TV signal.

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1 7. The method of claim 6, wherein the transmitted video output signal is delivered
2 through a video port in the network client device, the video port preset according to the
3 first video interface specification and according to at least one parameter of the TV signal.

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1 8. The method of claim 1, wherein the step of soliciting includes the step of
2 presenting at least one of visible instructions and audible instructions to the user.

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1 9. The method of claim 1, wherein the step of determining includes the step of
2 determining at least one of how to drive the display device such that a legible, non-
3 distorted picture is presented and what are optimal signal parameters to send to the
4 display device.

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1 10. The method of claim 1, wherein the step of determining includes the step of
2 determining at least one of how to drive the display device such that a legible, distorted
3 picture is presented and what are optimal signal parameters to send to the display device.

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1 11. The method of claim 1, further including the step of driving the display device
2 according to a second video format, wherein the step of driving the display device
3 according to a second video format is at least one of a result of an automatic cycling after
4 a defined threshold period of time of receiving no user input and a result of user input.

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1 12. The method of claim 11, wherein the step of driving the display device according
2 to a second video format includes the step of driving the display device through an output
3 port used to drive the display device according to the first video format.

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1 13. The method of claim 11, wherein the step of driving the display device according
2 to a second video format includes the step of driving the display device through an output
3 port different than the output port used to drive the display device according to the first
4 video format.

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1 14. The method of claim 1, wherein the display device is physically connected to a
2 network client device.

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1 15. The method of claim 1, wherein the display device is in wireless communication
2 with a network client device.

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1 16. The method of claim 1, further including the step of receiving a request for
2 discovery of the characteristic.

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1 17. The method of claim 16, wherein the step of receiving a request includes the step
2 of receiving a signal corresponding to the activation of a button on a remote control
3 device.

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1 18. The method of claim 1, further including the step of receiving a request for cycling
2 through at least one of a different video format and a different output port.

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1 19. The method of claim 18, wherein the step of receiving a request includes the step
2 of receiving a signal corresponding to the activation of a button on a remote control
3 device.

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1 20. The method of claim 1, further including the step of driving the display device
2 according to at least one of the determined characteristic and a plurality of determined
3 characteristics to present content on a display screen of the display device, wherein the
4 step of driving the display device is further according to at least one parameter of a TV
5 signal.

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1 21. The method of claim 20, further including the step of receiving pictures from a
2 storage device to process and present on the display screen of the display device.

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1 22. The method of claim 21, wherein the pictures include at least one of distorted
2 objects, non-distorted objects, distorted images, non-distorted images, visual information,

3 and a graphical characteristic to provide an indication of the characteristic of the display
4 device.

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2 23. The method of claim 1, wherein the step of determining a characteristic of the
3 display device further includes the step of determining how a user has configured the
4 display device to display a TV signal of a defined aspect ratio on the display device
5 having at least one of the same physical aspect ratio and a different aspect ratio as the
defined aspect ratio of the TV signal.

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2 24. The method of claim 1, wherein the user input includes user preferences.

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2 25. A method for determining the characteristics of a display device coupled to a
3 network client device, said method comprising the steps of:

4 cycling through a plurality of video formats, each part of the cycle including a
predetermined time duration;

5 outputting a video signal including pictures for each part of the cycle, wherein the
6 pictures include at least one of graphics data and video data;

7 processing the pictures for each video format for output to a display device;

8 setting parameters of a video output port according to each video format;

9 soliciting a user response for each video format, wherein the step of soliciting
10 includes the step of presenting at least one of visible instructions and audible instructions
11 to the user;

12 determining at least one characteristic of the display device based on the user
13 response, wherein the characteristic includes at least one of type of device, picture size,
14 frame rate, scan format, color format, colorimetry, picture width-to-height aspect ratio,
15 width-to-height aspect ratio of pixels, capability of providing ancillary data, manner of
16 providing the ancillary data; and

17 driving the display device according to the at least one determined characteristic
18 and according to at least one parameter of a received TV signal to present images on a
19 display screen.

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1 26. A system for determining the characteristics of a display device, said system
2 comprising:

3 a memory with display logic; and

4 a processor configured with the display logic to drive a display device with a first
5 video output signal formatted according to a first video interface specification, wherein
6 the processor is further configured with the display logic to, responsive to driving the
7 display device, solicit user input based on information included in the first video output
8 signal, wherein the processor is further configured with the display logic to determine a
9 characteristic of the display device based on the user input, wherein the processor is
10 further configured with the display logic to drive the display device according to the
11 determined characteristic.

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1 27. The system of claim 26, wherein the characteristic includes at least one of a type
2 of display device, picture size, frame rate, scan format, color format, colorimetry, picture
3 width-to-height aspect ratio, width-to-height aspect ratio of pixels, and capability and
4 manner of receiving ancillary data.

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1 28. The system of claim 26, wherein the display device includes at least one of a
2 television set and a display monitor.

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1 29. The system of claim 26, wherein the processor is further configured with the
2 display logic to effect the transmittal of an audio output signal containing audible voice
3 instructions to the user.

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1 30. The system of claim 26, wherein the processor is further configured with the
2 display logic to effect the transmittal of at least one of graphics data and video data.

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1 31. The system of claim 26, wherein the processor is further configured with the
2 display logic to receive a TV signal from a network, process the TV signal, and effect the
3 transmittal of a video output signal according to the first video interface specification and
4 according to at least one parameter of the TV signal.

1 32. The system of claim 26, wherein the processor is further configured with the
2 display logic to effect the transmittal of a video output signal through a video port, the
3 video port preset according to the first video interface specification and according to at
4 least one parameter of the TV signal.

1 33. The system of claim 26, wherein the processor is further configured with the
2 display logic to solicit by effecting the presentation of at least one of visible instructions
3 and audible instructions to the user.

1 34. The system of claim 26, wherein the processor is further configured with the
2 display logic to determine at least one of how to drive the display device such that a
3 legible, non-distorted picture is presented and what are optimal signal parameters to send
4 to the display device.

1 35. The system of claim 34, wherein the processor is further configured with the
2 display logic to determine at least one of how to drive the display device such that a
3 legible, distorted picture is presented and what are optimal signal parameters to send to
4 the display device.

1 36. The system of claim 34, wherein the processor is further configured with the
2 display logic to effect driving the display device according to a second video format, the
3 driving of the display device according to a second video format being at least one of a
4 result of an automatic cycling after a defined threshold period of time of receiving no user
5 input and a result of user input.

1 37. The system of claim 35, wherein the processor is further configured with the
2 display logic to effect driving the display device through an output port used to drive the
3 display device according to the first video format.

1 38. The system of claim 35, wherein the processor is further configured with the
2 display logic to effect driving the display device through an output port different than the
3 output port used to drive the display device according to the first video format.

1 39. The system of claim 26, wherein the processor is further configured with the
2 display logic to effect communication with the display device through at least one of a
3 wireless connection and a physical connection.

1 40. The system of claim 26, further including a remote control device configured with
2 a button that, responsive to activation of the button, cooperates with the display logic to
3 initiate discovery of characteristics of the device.

1 41. The system of claim 26, further including a remote control device configured with
2 a button that, responsive to activation of the button, cooperates with the display logic to
3 cycle through at least one of a plurality of formats and a plurality of video ports.

1 42. The system of claim 26, wherein the processor is further configured with the
2 display logic to effect driving the display device according to at least one of the
3 determined characteristic and a plurality of determined characteristics to present content
4 on a display screen of the display device, wherein the processor is further configured with
5 the display logic to effect driving of the display device according to at least one parameter
6 of a TV signal.

1 43. The system of claim 42, wherein the processor is further configured with the
2 display logic to receive pictures from a storage device, wherein the processor is further
3 configured with the display logic, and in cooperation with a media engine and output
4 system, to process the pictures and present content resulting from the processing on a
5 display screen of the display device.

1 44. The system of claim 43, wherein the pictures include at least one of distorted
2 objects, non-distorted objects, distorted images, non-distorted images, visual information,
3 and a graphical characteristic to provide an indication of the characteristic of the display
4 device.

1 45. The system of claim 43, wherein the processor is further configured with the
2 display logic, and in cooperation with the media engine and the output system, to distort

3 at least one of objects and video images and leave undistorted at least one of objects and
4 video images

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2 46. The system of claim 43, wherein the processor is further configured with the
3 display logic, and in cooperation with the media engine and the output system, to
4 determine how a user has configured the display device to display a TV signal of a
5 defined aspect ratio on the display device having at least one of the same physical aspect
ratio and a different aspect ratio as the defined aspect ratio of the TV signal.

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2 47. The system of claim 26, wherein the user input includes user preferences.

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2 48. The system of claim 26, wherein the system is embodied in a network client
device in communication with the display device.

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2 49. A system for determining a preferred display performance between the de-
3 interlacing ability of a display device coupled to a network client device and the de-
4 interlacing ability of the network client device, said system comprising:

5 a memory with display logic; and

6 a processor configured with the display logic to present objects on a display screen
7 of a display device that are altered by the display logic to solicit a response by a user,
8 wherein the processor is further configured with the display logic to, responsive to the
user input, determine the de-interlacing capability of the display device.

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2 50. The system of claim 49, wherein the display device includes a television set.

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2 51. The system of claim 49, wherein the processor is further configured with the
display logic to determine the de-interlacing capability of the client device.

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2 52. The method of claim 49, wherein the system is embodied in a network client
3 device capable of outputting video and audio in at least one defined format through at
least one port.